

REMARKS

Review and reconsideration on the merits are requested.

Claim 1 is amended by reciting that the polyester film has a thickness of 100 to 250 μm .

This narrows the claim to the recited range and the equivalents thereof.

The upper limit of 250 μm finds basis at page 6, line 24 and in original claim 3 as filed.

The lower limit of 100 μm is based on all of Examples I, II, III, IV and V where films having a thickness of 100 μm were used.

Applicants now turn to the Action in detail.

Paragraph 1 and 2

Applicants affirm their election and note that claims 2, 12-24 and 26 are non-elected and withdrawn from consideration.

Paragraph 3

Applicants follow the sub-paragraphing of the Examiner.

Paragraph 3a

The Examiner is correct that claims 3-11 are dependent upon claim 1 or non-elected claim 2. The claims which remain are amended to depend only on claim 1.

Paragraph 3b

Claim 11 is canceled.

Paragraph 3c

Claim 25 is canceled.

Withdrawal of all claim objections is requested.

Paragraph 4

Formal.

Paragraph 5

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to provide an adequate written description of the invention.

The Examiner refers to Applicants' "attempts to incorporate a foreign test standard in the specification", citing page 8, line 32; page 18, line 25; page 20, line 29 and page 21, line 9. Page 8 refers to CIE 1976, page 18, line 25 refers to JIS C2701 (1975), page 20, line 29 refers to JIS Z 8741-1962 and page 21, line 9, refers to JIS B0601. Applicants advise that "JIS C2701" which is mentioned in the specification at page 18, line 25, should be "JIS C2107". The specification is corrected in this regard.

Applicants submit herewith as an attachment what they advise represents CIE 1976 referred to at page 8, line 32. In addition, Applicants submit a copy in Japanese of the following documents:

1. Document 1: comments on JIS B0601 (pages 10 to 20)
2. Document 2: copy of JIS C2107 (pages 1 to 10)
3. Document 3: comments on JIS Z8741 (pages 396 to 399)
4. Document 4: JIS Z8729 (pages 254 to 257 and 262) This document includes a description of CIE 1976 (L*, a* and B* color spaces).

Applicants believe this document describes L*, a* and b* more clearly than the document regarding CIE 1976 above mentioned.

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Applicants are in the process of obtaining translations of the JIS standards mentioned at page 18, line 25; page 20, line 29; and page 21, line 9, and the same will shortly be submitted (mid-May 2003, at the latest).

Pending receipt of the JIS material, withdrawal is requested.

Paragraph 6

Formal.

Paragraph 7

Claims 5 and 25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Paragraph 7b

With the cancellation of claim 25, the above rejection is mooted, as is the rejection of claim 25 under 35 U.S.C. § 101.

Paragraph 7a

With respect to paragraph a, a., i.e., that the terms “a*” and “b*” render the claim ambiguous, Applicants respectfully submit that the above Document 4 explains these terms, i.e., these terms have a well-defined meaning in the art.

It is believed that Document 4 JIS Z8729 will respond to the Examiner’s requirement, and withdrawal is requested pending filing of the translation earlier mentioned.

Prior art considered: U.S. Patent 6,420,010 Hasegawa et al (Hasegawa); U.S. Patent 5,958,552 Fukuda et al (Fukuda).

Paragraph 8

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Formal.

Paragraph 9

Claim 1, 4 and 6-10 are rejected under 35 U.S.C. § 102(b) as anticipated by Hasegawa.

Since claim 3 is not rejected and Applicants include subject matter into claim 1 which is narrower than that recited in claim 3 (100 to 250 μm in claim 1), and since claims 4 and 6-10 all depend from claim 1, Applicants submit they have avoided the anticipation rejection over Hasegawa and request withdrawal.

Paragraph 10

Formal.

Paragraph 11

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa in view of Fukuda. Claim 3 is cancelled.

The Examiner's position on the rejections is set forth in detail in the Action and will not be repeated here except as necessary to an understanding of Applicant's traversal of the rejection, which is now presented.

Traversal

As is clear from amended claim 1, the gist of the present invention relates to providing a white biaxially oriented polyester film for use as a base film for receiving an ink jet printer image, which can substitute for photographic paper. As a consequence, the film of the present invention must be white and must be excellent in glossiness, and, of course, must be excellent in capability of receiving an ink jet printer image and must undergo low thermal shrinkage.

In distinction, Hasegawa is concerned with a polyester film which is to be laminated on a metal can. The film is a laminate of three layers, each formed of a copolyester. Hasegawa contains no disclosure regarding any use of the Hasegawa laminated film in the ink jet printer environment. The Examiner's attention is specifically directed to Hasegawa at col. 9, lines 15-21, where Hasegawa states:

The white laminated polyester film of the present invention preferably has a thickness of from 6 to 75 μm , more preferably from 10 to 75 μm , especially from 15 to 50 μm . A film thinner than 6 μm is liable to cause the cracking, etc., in the manufacture of a metallic can and a film having a thickness exceeding 75 μm has an unnecessarily excess quality resulting in high cost.

Further referring to the laminated films obtained in Examples 1-21 of Hasegawa, those films have a thickness of 20 μm . The laminated films obtained in Examples 22 to 40 of Hasegawa have a thickness of about 17-18 μm . Thus, Hasegawa simply discloses films having a very small thickness which are to be laminated on a metal can.

The rejection is, of course, a combination rejection, and Applicants now turn to Fukuda.

Fukuda discloses a laminated film for use in an overhead projector, i.e., Fukuda discloses a laminated film having a specific hydrophilic coating layer.

Fukuda is primarily directed to the use of a layer formed of a specific composition as a hydrophilic coating layer and contains no disclosure regarding any features of the base film of the laminated film.

As earlier discussed, the present invention is directed to a white biaxially oriented polyester film which satisfies requirements (1) to (5) as called for in amended claim 1, which

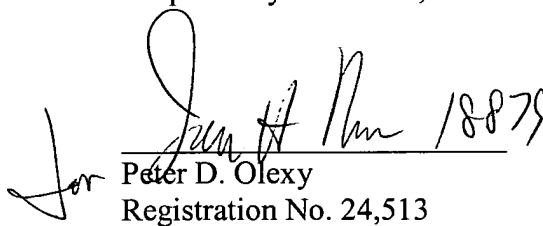
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white biaxially oriented polyester film exhibits remarkably excellent features for receiving an ink jet printer image.

Considering that Hasegawa does not disclose or suggest any film remotely similar to that of the present invention, and the combination of Hasegawa and Fukuda does not suggest any film remotely similar to the present invention, Applicants respectfully request withdrawal of the rejection over Hasegawa in view of Fukuda.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

Date: April 24, 2003

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please amend fourth full paragraph on page 18 as follows:

An aqueous slurry prepared by mixing 70 wt% of spherical silica (average particle diameter of 18 μm , average pore diameter of 200 Å, average pore volume of 1.5 cc/g) and 30 wt% of a polyvinyl alcohol (PVA117 of Kuraray Co., Ltd.) is applied to the coating film surface of a polyester film to a dry thickness of 20 μm , and Scotch tape (No. 600 of 3M Limited) having a width of 12.7 mm and a length of 150 mm is affixed to the coating film such that air bubbles are not contained therein, bonded to the coating film by rolling with a manual roll specified in JIS ~~C2701~~ C2107 (1975) and cut to the width of the tape. By removing the Scotch tape from the thus prepared sample, the peeling of the ink image receiving layer from the polyester film is observed to evaluate adhesion as follows.

IN THE CLAIMS:

Claims 3, 11 and 25 are canceled.

The claims are amended as follows:

1 (Amended) A white biaxially oriented polyester film for use as a base film for receiving an ink jet printer image, which satisfies the following requirements (1) to (4):

(1) the content of titanium oxide particles having an average particle diameter of 0.1 to 0.5 μm in the polyester film is 5 to 20 wt%;

(2) the polyester film has an average glossiness of 65 to 95 %;

(3) the polyester film has an X-ray diffraction intensity ratio (F-1/F-2) represented by the following formula (1):

$$0.05 \leq F-1/F-2 \leq 0.15 \quad (1)$$

wherein (F-1) is an X-ray diffraction intensity on a plane $(1\bar{1}0)$ parallel to the surface of the film and (F-2) is an X-ray diffraction intensity on a plane (100) parallel to the surface of the film;
[and]

(4) the polyester film has a static friction coefficient of 0.3 to 0.6; and

(5) the polyester film has a thickness of 100 to 250 μm .

4. (Amended) The film of claim 1 [or 2], wherein the polyester film has a thermal shrinkage factor of 2 % or less when it is kept at 150°C for 30 minutes.

5. (Amended) The film of claim 1 [or 2], wherein the polyester film has such whiteness that lightness (L^*) and chroma (C^*) defined in CIE1976 satisfy the following expressions (1) to (3):

$$L^* \geq 90 \quad (1)$$

$$C^* \geq 3 \quad (2)$$

$$2L^* + C^* \geq 190 \quad (3)$$

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provided that $C^* = \{(a^*)^2 + (b^*)^2\}^{1/2}$.

6. (Amended) The film of claim 1 [or 2], wherein the polyester film has an optical density of 0.7 to 1.6.

7. (Amended) The film of claim 1 [or 2], wherein the polyester film has a center line average surface roughness (Ra) of 30 to 100 nm.

8. (Amended) The film of claim 1 [or 2], wherein the polyester film has a molecular orientation rate (MOR) of 1.1 to 4.0.

9. (Amended) The film of claim 1 [or 2], wherein the polyester film contains inert particles having an average particle diameter of 0.01 to 5.0 μm other than titanium oxide particles in an amount of 0.01 to 5.0 wt%.

10. (Amended) The film of claim 1 [or 2], wherein the polyester film is formed from polyethylene terephthalate.